Keyspan:Mini Port Replicator for Windows-v3.2 User Manual

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1.1 - Introduction

Looking for a way to connect your serial devices and parallel printer to a USB port on your USB equipped Windows computer? The **Keyspan Mini Port Replicator** is a simple, inexpensive, and reliable way to make this connection.

The Adapter plugs into any USB port on your PC. It provides one DB9 serial port, one DB25 printer port, and a two port USB hub.

Multiple Keyspan Mini Port Replicators may be installed on one CPU if desired.

Requirements

The **Keyspan Mini Port Replicator Software for Windows** requires the following:

- Windows:
    - At least one available USB port
    - Windows 98 / 98 SE / 98 Me / 2000 / XP

Contents

The **Keyspan Mini Port Replicator** package (part# UPR-112) includes:

- Keyspan Mini Port Replicator (UPSH-112)
- Mac and Windows compatible CD with software and user manual

Note: This documentation applies to Keyspan's Mini Port Replicator Software for Windows and covers the features and use of this software on that platform. For information and instructions for this product on other platforms, please visit Keyspan's web page <http://www.keyspan.com>.

2.1 - Capabilities

The Keyspan Mini Port Replicator is three devices in one. It contains **one male DB9 serial port**, **one female DB25 printer port**, and a **two port USB hub**.
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Keyspan Mini Port Replicator - Serial Port

Keyspan Mini Port Replicator
Serial Port

The DB9 serial port on the Mini Port Replicator supports **RS-232** asynchronous communications at **data rates up to 115.2 Kbps**. Please read our Compatibility List for Windows for a list of serial devices that have been tested with the Keyspan Mini Port Replicator

The DB9 port on the Keyspan Adapter is seen as a COM port by Windows.   The Keyspan COM port is interfaced via the "Win32 Communications API" and is then available to any program that accesses COM ports via this API.

By default, the COM port number assigned to the Keyspan adapter is the first unassigned (available) COM port number in the Windows registry.   For example, if COM1 and COM2 have already been assigned or set aside by any software or hardware, the Keyspan adapter will take the next COM port (COM3).   This COM port number can then be accessed via your serial device's software (ie Palm's HotSync Manager, Wacom tablet control panel, etc.)

Note: You can connect more than one Keyspan Mini Port Replicator to your USB equipped Windows computer. The DB9 ports on subsequent adapters will have a different COM port numbers.
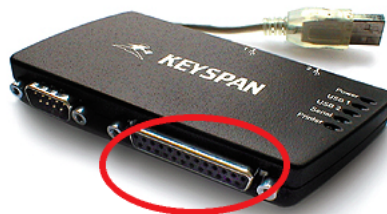
Keyspan Mini Port Replicator - 2 port USB Hub

Keyspan Mini Port Replicator
2 port USB Hub
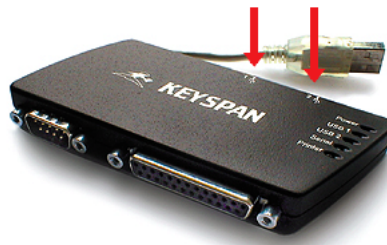
The Keyspan Mini Port Replicator also includes a **2 port USB hub**. This hub support USB 1.1 devices and functions as a bus-powered USB hub.

Keyspan Mini Port Replicator - Printer Port

Keyspan Mini Port Replicator
DB25 Printer Port

The DB25 printer port on the Mini Port Replicator supports many popular parallel printers.

On Windows 98, 98 SE, and Me, the DB25 port on the Keyspan Adapter is seen as a **LPT** port. This LPT port can be selected in your printer's **Properties** window.

On Windows 2000 and XP, the DB25 port is installed as '**USB Printing Support**' and creates a port called '**USB00x**'. The USB001 port can then be be selected in your printer's **Properties** window.

3.1 - Installation Instructions

Installing the Mini Port Replicator Software for Windows Operating Systems

> **Note:** These instructions apply to installing the Keyspan Mini Port Replicator on Windows. If you are installing this software on other platforms, please read the **Keyspan Mini Port Replicator User Manual** for that platform.

Step 1 - Insert the Keyspan Serial Adapter CD-ROM

Turn your computer ON. When your computer starts up, place the Keyspan Mini Port Replicator CD into the CD-ROM drive.

This will open the Keyspan Mini Port Replicator *CD browser* (Note: you can manually start the *CD browser* by locating and running the "**Launch.exe**" program on the CD-ROM).

Step 2 - Run the Keyspan USB Serial Software for Windows Installer

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If the Keyspan Adapter is connected to your computer, **disconnect** it now.

Once the Keyspan CD browser has opened, click on the "**Install Software**" selection and then click on the "**Install Keyspan Mini Port Replicator Software**" selection. This will start the software installer.

Follow the instructions on-screen to complete the installation.

Step 3 - Software Installation Complete!

Now that you have installed the Keyspan Mini Port Replicator software, you are ready to install the Keyspan Mini Port Replicator hardware. Please proceed to the **installing the Keyspan Mini Port Replicator Hardware** instructions.

(continued on next page...)

Installing the Keyspan Mini Port Replicator Hardware

The following hardware installation instructions provide a basic overview on installing the **Keyspan Mini Port Replicator** in a USB port. For detailed instructions on how to connect USB devices your specific computer, please refer to the USB Device Install section in your computer's user's manual.

Step 4 – Connect the Adapter to your USB port

Attach the Adapter to your computer by connecting the Adapter's USB cable into any built-in USB port on your computer or USB Hub. It is not necessary to turn off your computer when attaching the Adapter.

Step 5 – Hardware Installation Complete!

Your Keyspan Mini Port Replicator is ready for use now that you have installed hardware and software.

If you are connecting USB devices to the Mini Port Replicator, simply connect them to either USB port. These devices will function just as they do on any other USB hub.

If you are connecting a serial device to the Mini Port Replicator, please proceed to the Configuring Your Serial Device section in this manual.

If you are connecting a printer to the Mini Port Replicator, please proceed to the Configuring Your Parallel Printer section in this manual.

4.1 - Configuring Your Serial Device

Prior to using your serial device (modem,UPS, etc.) with the Keyspan Mini Port Replicator, you must:

      1. connect your serial device (*hardware*) to the Keyspan **DB9** port
      2. configure your serial device's *software* to use the Keyspan port

The following instructions provide a general overview of this process however we do provide specific configuration instructions for certain serial devices.   For a list of these examples, please read the Configuration Examples for Windows Appendix in this manual.

Connecting Your Serial Device (Hardware)

If your Keyspan adapter is not connected, please do so NOW.

Step 1 – Connect Your Serial Device To The Keyspan Adapter

Attach your serial device's (ie Palm cradle, Wacom Tablet, WinCE device, etc.) serial cable to the serial port on your Keyspan Mini Port Replicator.

Step 2 – Determine Which Keyspan Port Your Serial Device Is Connected To

If your have a Keyspan product that has more than one serial port, please note which Keyspan serial port your serial device is connected to (the serial port on the Keyspan product, not your USB ports on your computer or USB hub). This information will become useful as we start Configuring Your Serial Device's Software.

Configuring Your Serial Device's Software

The following configuration instructions provide a basic overview of how to configure your software to use your Keyspan serial port(s). For specific instructions on how to operate your serial device, please refer to your serial device's user's manual for detailed instructions...

(continued on next page...)

Keyspan:Mini Port Replicator for Windows-v3.2 User Manual

Step 3 - Check the Keyspan Serial Assistant

Now that your serial device is connected to the Keyspan adapter, you should check to see if the Keyspan serial port is installed correctly.

To do this, open the Keyspan Serial Assistant (in **Start** menu -> **Programs** -> **Keyspan Mini Port Replicator** -> **Keyspan Serial Assistant**). When you open the Keyspan Serial Assistant, you will see the following window:

the **Keyspan Serial Assistant** window
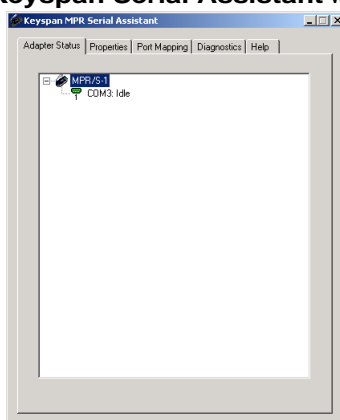
If your Keyspan hardware and software are installed correctly, you will see your adapter in the '**Adapter Status**' tab box. You should also see the *COM port number* (ie **COM1**, **COM2**, etc.) and the *COM Port Status*.(**IDLE** or **BUSY**).

The **COM port number** and its **COM port Status** message are **very important** to configuring your serial device.

The **COM port Status** is the state of the Keyspan serial port. All serial ports have two states, **BUSY** (aka "*In Use*") or **IDLE** (aka "*Available*"). When serial port is **IDLE**, the port is *available* for use by any serial device's software. When a COM port is **BUSY**, the serial port is *in use* by software and therefore *not available* to other programs.

The **COM port number** is the address of the Keyspan serial port. In order for any serial device to communicate via the Keyspan adapter, that serial device's software must be told to use the Keyspan **COM port number**.

If you see your **COM port number** and its **COM port Status**, proceed to **Step 4**. If you do not see either of these items, proceed Problem Solving section in this manual.

(continued on next page...)

Step 4 – Determine Where To Select/Configure The Keyspan Serial Port(s)

Prior to using your serial device with a Keyspan serial port, you must first tell that serial device's **software** which serial port your serial device **hardware** is connected to.

For example, if you have a Palm, you will have to tell the Palm Desktop **software** to look for your Palm handheld (**hardware**) on a Keyspan serial port. By doing this, you establish communication between your serial device's **software** (ie the Palm Desktop software) and your serial device hardware (the Palm handheld unit).

Most serial devices will have software that will allow you to select which serial port the device is connected to. Depending on your serial device and its software, you may have to configure: a Control Panel (ie modems accessing ISPs), an application (ie UPSes), or some combination of these (ie modems accessing terminals using Zterm).

Please refer to your serial devices documentation on which method your serial device uses and how to access that software's serial port "configuration" screen.

Once you've determined where to select or configure your serial device's software's serial port settings, please proceed to **Step 5**.

Step 5 – Determine Which Serial Port To Select In Your Serial Device's Software

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When you've found the port selection screen in your serial device's software, you may be presented with a list of COM port numbers, a place to type in a COM port number, or some combination of both.

At this point, you have to select or enter COM port number of the Keyspan serial adapter you are connecting to. Please note that you can see the COM port number in the **Adapter Status** tab in the Keyspan Serial Assistant.

Step 6 – Use Your Serial Device

Once you've configured your serial software to use the Keyspan serial port, you're ready to start using your serial device under Windows.

4.2 - Configuring Your Parallel Printer

Prior to using your parallel printer with the Keyspan Mini Port Replicator, you must:

>   1. connect your printer (*hardware*) to the Keyspan **DB25** printer port
>   2. configure your printer's *software* to use the Keyspan LPT port

The following instructions provide a general overview of this process.

Connecting Your Parallel Printer (Hardware)

Before you begin, make sure that you have already installed your printer's software and the Keyspan adapter is already connected.

Step 1 – Connect Your Parallel Printer To The Keyspan Adapter

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Attach your printer's parallel cable to the DB25 printer port on the Keyspan adapter.

Configuring Your Printer's Software

Step 2 – Determine Which Keyspan Port Your Printer Is Connected To

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To determine which Keyspan port your printer is connected to, open the **Device Manager**. To do this, open your **System** properties (right-click on **My Computer** and then select **Properties** from the pull down list or open the **System** control panel in **Control Panels**).

Once you are in System properties, click on the **Device Manager** tab if you are running Windows 98, 98 SE, or Windows Me. If you are running Windows 2000 or XP, click on the **Hardware** tab and then click on the **Device Manager** button. This will open the the Device Manager window.

If you are running Windows **98, 98 SE**, or **Me**, locate the section labeled **Ports (COM & LPT)** in the Device Manager window. If necessary, click plus (+) to see your ports. You should see your Keyspan LPT port listed. Please note this LPT number as this will become important as we configure your printer. Once you have noted your Keyspan LPT port, close the Device Manager and proceed to Step 3...

If you are running Windows **2000**, or **XP**, locate the section labeled **Universal Serial Bus Controllers** in the Device Manager window. If necessary, click plus (+) to see the items in this list. You should see your Keyspan printer port listed as '**USB Printing Support**'. Once you have
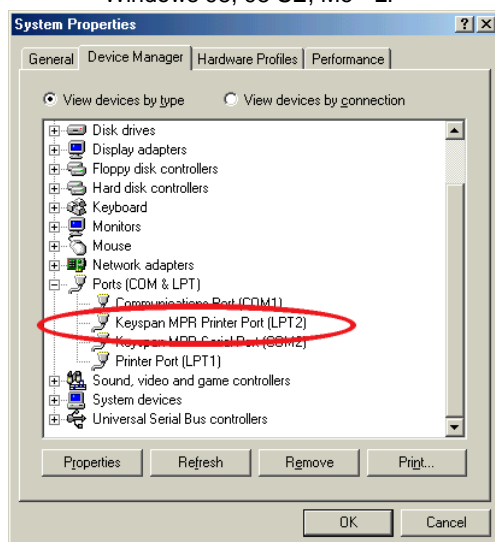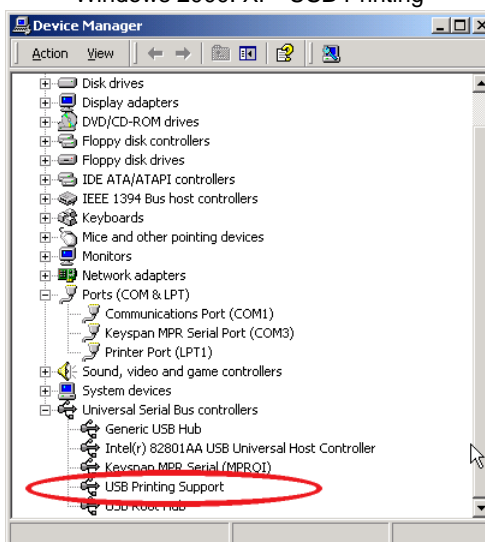
verified that you have '**USB Printing Support**'., close the Device Manager and proceed to Step 3.

Device Manager

Windows 98, 98 SE, Me - LP   Windows 2000. XP- USB Printing

Step 3 – Tell Your Printer To Use The Keyspan Printer Port

We now need to tell your printer to use your Keyspan LPT port. To do this, open the **My Computer** icon and then open the **Printers** folder.

In the **Printers** folder (in **Start** menu -> **Settings** -> **Printers)** locate the icon for your printer. Right click on the printer icon and select **Properties** from the menu. This will open your printer's **Properties** window.

If you are running Windows **98**, **98 SE**, or **Me**, click on the the **Details** tab and then locate the **Printer Port** list box and select your Keyspan LPT port. Once you've done this, close all configuration windows.

If you are running Windows **2000**, or **XP**, click on the the **Ports** tab and then locate the **Printer Port** list box and select the **USB00x** port. Once you've done this, close all configuration windows.

Your printer is now configured and ready for use.

5.1 - Keyspan Serial Assistant

Besides the required drivers, the Keyspan Mini Port Replicator software installer installs an application called **Keyspan Serial Assistant**. This application is used to:

- Determine the status of the adapter software and hardware
- Assist in problem solving

Launching the Keyspan Serial Assistant

To launch the Assistant, open the Keyspan Serial Assistant (in **Start** menu -> **Programs** -> **Keyspan Mini Port Replicator** -> **Keyspan Serial Assistant**). When you open the Keyspan Serial Assistant, you will see the following window:

the **Keyspan Serial Assistant** window
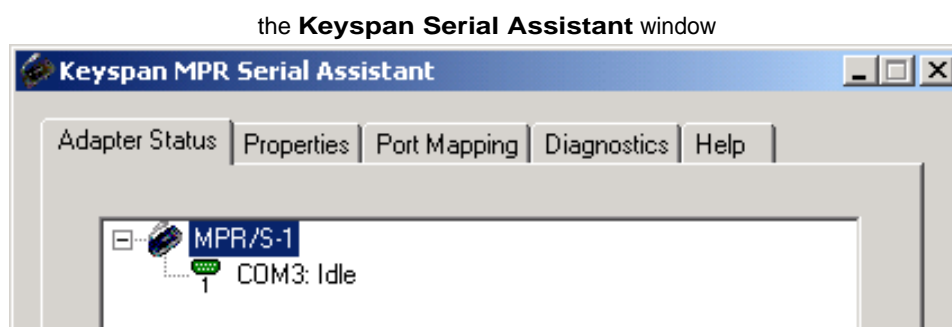
If your Keyspan hardware and software are installed correctly, you will see your adapter in the '**Adapter Status**' tab box. You should also see the *COM port number* (ie **COM1**, **COM2**, etc.) and the *COM Port Status*.(**IDLE** or **BUSY**).

If you see your **COM port number** and its **COM port Status**. If you do not see either of these items, proceed Problem Solving section in this manual.
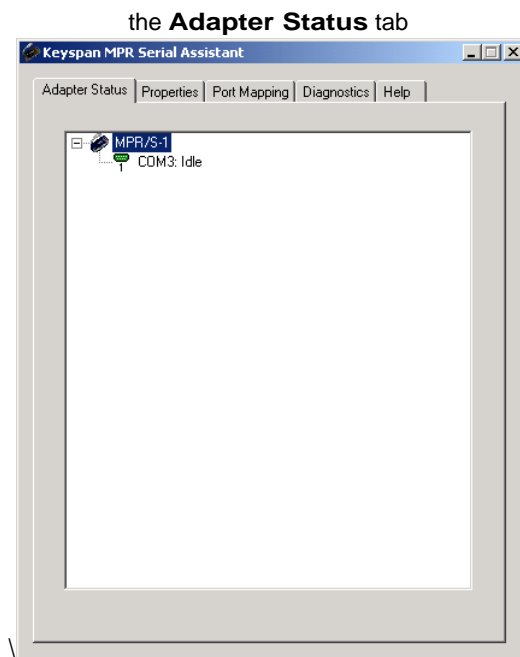
Explanation of Assistant Features

The following is a description of all the relevant text boxes and menus found in the Keyspan Serial Assistant. You can also obtain this information by turning on the '**Enable Tool Tips**' check box in the **Help** tab in the Assistant window.

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Adapter Status Tab

the **Adapter Status** tab

The **Adapter Status** tab in the Keyspan Serial Assistant displays the status of your Keyspan adapter. Specifically, it shows the *COM port number* (ie **COM1**, **COM2**, etc.) and the *COM Port Status*.(**IDLE** or **BUSY**). If you have several Keyspan adapters of the same type, they will all show up in this tab.

This is also the first place to check to see if your Keyspan adapter is working properly. If your Keyspan adapter does not show up in the **Adapter Status** tab, please proceed Problem Solving section in this manual for further instructions.

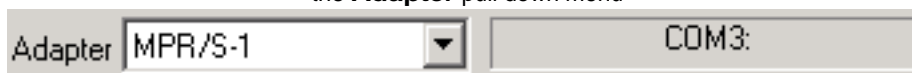**(continued on next page...)**

## Properties Tab
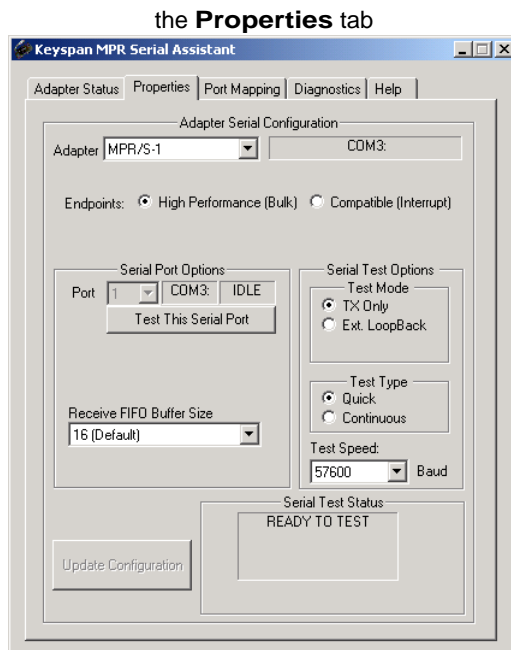
the **Properties** tab

The **Properties** tab in the Keyspan Serial Assistant allows you **test** your Keyspan adapter and **make changes to the behavior** of the Keyspan adapter. The following is an explanation of the items in this tab.

the **Adapter** pull down menu

The **Adapter** pull down menu is used to select which Mini Port Replicator you would like to configure. If you only have one Keyspan Mini Port Replicator, you will not need to change the selection.

the **Endpoints** radio buttons
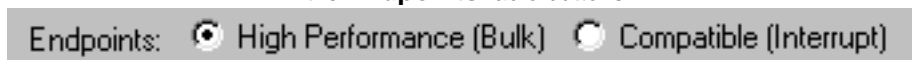
The **Endpoints** radio buttons are used to configure how the Keyspan adapter will communicate with the USB subsystem (software)on your computer. Most users will not need to modify the default setting (High Performance (BULK)). You should only change this setting if you are sure that your serial device needs a specific setting. The default setting is *High Performance (BULK)*.

(continued on next page...)
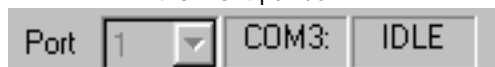
the **Port** pull down

If you have more than one serial port on your Keyspan adapter, the **Port** pull down menu allows you select which serial port you want to modify or test. You can also see the serial port's *COM port number* and its *COM port status* next to the **Port** pull down menu.   If you only have one serial port on your Keyspan Mini Port Replicator, you will not need to change the selection.

The **Test This Port** button

The **Test This Port** button tests the COM port selected in the **Port** pull down menu. The test that is performed is the selected test in the **Test Option** box.

the **Test Mode** box
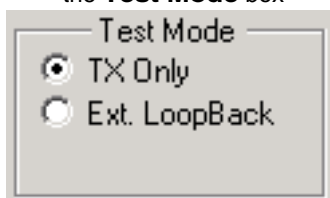
The **Test Mode** box allows to specify the type of test that will be performed when you press the **Test This Port** button.

There are 2 types of tests:

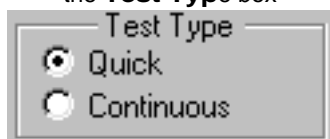*TX Only*: Use this test to test only the transmit (Tx) signals of the Keyspan adapter.

Ext. LoopBack: Use this test sending and receiving data. This test sends data out the selected serial port and waits to receive it via a special Loopback connector. You can find more information about this special Loopback connector in the Serial Port Pin Outs section in this manual.
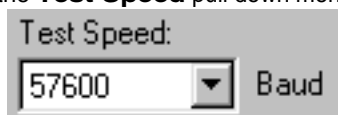
the **Test Typ**e box
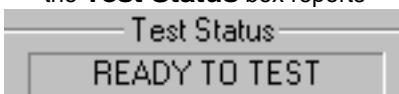
Test Type
- ⦿ Quick
- ◯ Continuous

The **Test Typ**e box allows to specify how many times the selected test will be repeated when you press the Test button. Use the *Quick* option to perform the test once. To perform a subsequent test, press the **Test This Port** button. Use the *Continuous* option to repeat the test continuously. To stop the test, press the **Stop Test** button (the **Test This Port** button becomes the **Stop Test** button during a test).

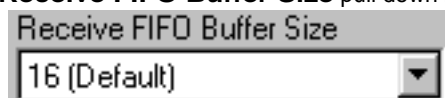the **Test Speed** pull down menu

Test Speed:
57600 ▼ Baud

The **Test Speed** pull down menu allows to specify the speed (baud rate) at which the port will be tested at when you press the **Test This Port** button button.

the **Test Status** box reports

Test Status
READY TO TEST

The **Test Status** box reports the test status or results of the selected COM port.

the **Receive FIFO Buffer Size** pull down menu

Receive FIFO Buffer Size
16 (Default) ▼

The **Receive FIFO Buffer Size** pull down menu allows you to configure the number of characters which are stored in the card's "**F**irst **I**n **F**irst **O**ut" input buffer ("FIFO") before they are made available to the computer. The default value of this parameter is "16". The **Receive FIFO** improves the reliability of data transfer at high speeds. You can turn this option OFF for performance reasons however this is not necessary in most cases.

the **Update Configuration** button
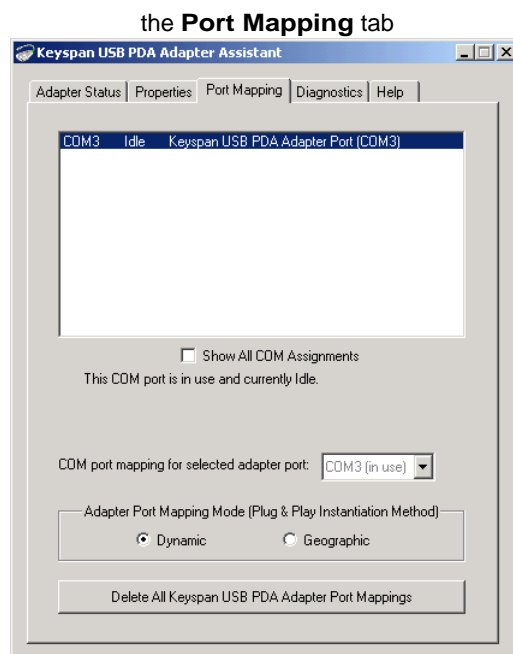
Update Configuration

The **Update Configuration** button updates the Keyspan adapter with the changes you have made in the **Properties** tab. Please note that these changes will take effect when you click the **Update Configuration** button.

Port Mapping Tab

the **Port Mapping** tab

The **Port Mapping** tab in the Keyspan Serial Assistant allows you to change how COM port numbers are assigned to your Keyspan adapter. The following is an explanation of the items in this tab.

Important!!! Please make sure you read this entire section. Changing COM port assignments may render other hardware unusable.

the **COM Port List** box
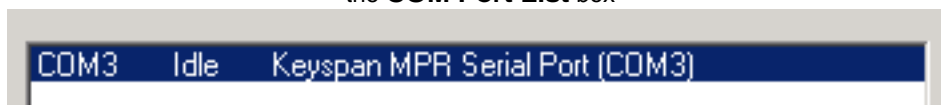
The **COM Port List** box shows any connected **Keyspan Mini Port Replicator**, its *COM port number* and *COM port status*. You can also see any other COM port that have been assigned or reserved on your computer if you enable or check the **Show All COM Assignment** check box.

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This User Manual applies to the Keyspan Mini Port Replicator Software for **Windows**.

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the **Show All COM Assignments** check box

☐ Show All COM Assignments

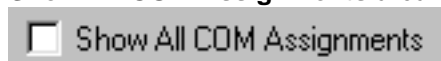Enable or check the **Show All COM Assignments** check box to display ALL of the COM port name and numbers that have been registered on your computer. This will include COM ports for other devices.

Note: You may have COM ports assigned or 'set aside' for hardware that may not be installed on your computer depending on how your computer was setup by its manufacturer.

the **COM port mapping** pull down menu

COM port mapping for selected adapter port: COM3 (in use) ▼
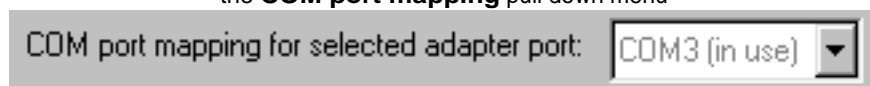
The **COM port mapping** pull down menu allows you to reassign the selected Keyspan COM port in the **COM port list** window. This window also reports whether a COM port is '*in use*'. In this menu, '*in use*' means that the selected COM port has assigned or reserved. It is **highly recommended** that you only change the COM port mapping to COM ports that are not '*in use*'.

Note: The **COM port mapping** pull down menu allows you to change the COM port mapping to any COM port including those that have already been assigned (aka *in use*). Changing the COM port mapping to a COM port that is *in use* may render any hardware and/or software using that port inoperable.

the **Adapter Port Mapping Mode** box

Adapter Port Mapping Mode (Plug & Play Instantiation Method)
⦿ Dynamic   ○ Geographic
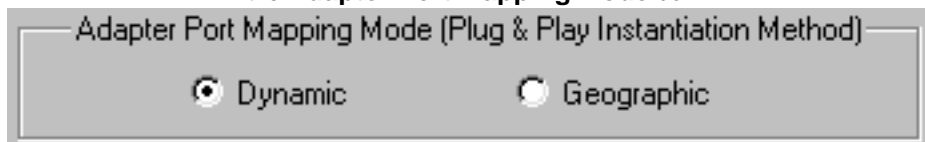
The **Adapter Port Mapping Mode** box allows you to change the behavior of how Keyspan COM port numbers are assigned when you connect the Keyspan adapter to a different USB port than the one it was originally connected to.

Dynamic assigns a COM port number (or numbers if your Keyspan adapter has multiple serial ports) to a particular Keyspan adapter. If you disconnect the Keyspan adapter and connect it to a different USB port, the COM port number of that Keyspan adapter will **not change**. This is the **default setting** and is recommended setting if you only have one Keyspan adapter.

Geographic assigns a COM port number (or numbers if your Keyspan adapter has multiple serial ports) to a particular USB port on your computer. If you disconnect the Keyspan adapter and connect it to a different USB port, the COM port number of that Keyspan adapter **will change**. This setting is recommended if you are using multiple Keyspan adapters and want the COM port numbers to remain the same.

the **Delete All Keyspan Mini Port Replicator Port Mappings** button

Delete All Keyspan MPR Serial COM Port Mappings

The **Delete All Keyspan Mini Port Replicator Port Mappings** button clears the Windows registry of all Keyspan Mini Port Replicator *COM port numbers* and Keyspan USB information. This allows Windows to create new COM port assignments.

Note: that this is an option for advanced users only. If you are unsure about how this command will affect your computer, please contact Keyspan Tech Support for further assistance.

Diagnostics Tab

the **Diagnostics** tab
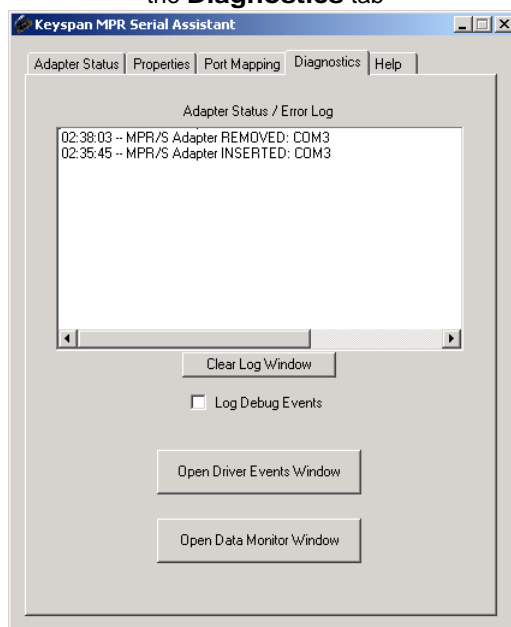
The **Diagnostic** tab in the Keyspan Serial Assistant reports diagnostic information about your Keyspan adapter's software and hardware. This information is useful if you are trying to solve problems with Keyspan's technical support staff. The following is an explanation of the items in this tab.

(continued on next page...)

the Adapter Status/Error log **Log Window**

```
Adapter Status / Error Log

02:38:03 -- MPR/S Adapter REMOVED: COM3
02:35:45 -- MPR/S Adapter INSERTED: COM3
```

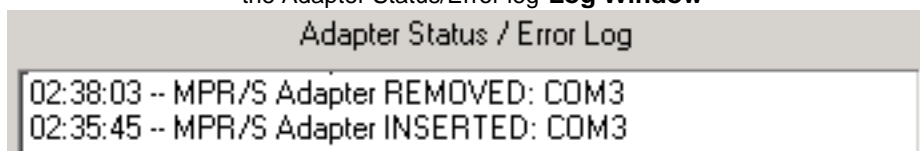The **Adapter Status / Error Events** box displays the status of your Keyspan adapter hardware and software. It detects if the Keyspan driver is installed and whether or not a Keyspan adapter is connected.

the **Clear Log Window** button
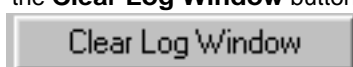
Clear Log Window

The **Clear Log Window** button will clear the **Adapter Status / Error Events** box.

the **Log Debug Events** check box

☐ Log Debug Events

Enable or check the **Log Debug Events** check box to display all of the Keyspan adapter's debug events as well as the driver events. This option can be turned on and off.

the **Open Driver Events Window** button

Open Driver Events Window
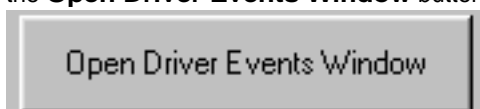
The **Open Driver Events Window** button will open the Keyspan adapter's Event log window. This window reports all of the events or actions that the adapter is performing. This is useful in troubleshooting data communication problems.

the **Open Data Monitor Window** button

Open Data Monitor Window

The **Open Data Monitor Window** button will open the Keyspan adapter's Line Monitor (aka Data Monitor) window. The Line Monitor will display all data and all modem control state changes sent to and from the Mini Port Replicator.

(continued on next page...)

Help Tab
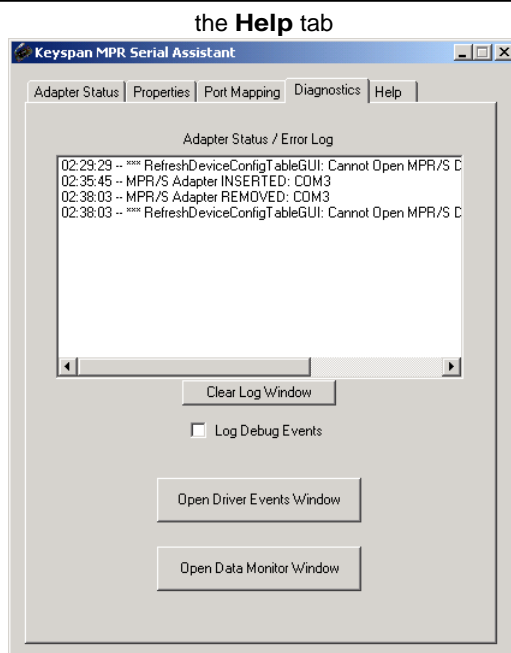
the **Help** tab

The **Help** tab in the Keyspan Serial Assistant displays the version numbers if the different components in your Keyspan USB Serial Adapter installation. You can also enable **Tool Tips** (on screen help), read your Keyspan adapter's User's Manual, or go to Keyspan's home page.

6.1 - Problem Solving

If you are having problems with your **Keyspan USB to Serial Adapter in Windows**, please read the following instructions to assist you in troubleshooting your Keyspan adapter.

Hardware Troubleshooting

Step 1 - Use the Keyspan Serial Assistant

Launch the Keyspan Serial Assistant application. When you open the Keyspan Serial Assistant application, the '**Adapter Status**' tab will show your Keyspan adapter, its *COM port number* (ie **COM1**, **COM2**, etc.) and its *COM Port Status*.(**IDLE** or **BUSY**).

If you do not receive either of these messages, please contact Keyspan Tech Support for further assistance.

Otherwise, skip ahead to **Step 2**.

Software/Serial Device Troubleshooting

Step 2 - Check The Physical Connections

Make certain that your serial device is powered on and is properly connected to the Keyspan Serial Adapter.

Proceed to **Step 3** ...

Step 3 - Check Your Serial Device's Software Configuration

Check to see if your serial device's software is configured to use the Keyspan port . Please refer to your serial device's documentation for instructions on how to select/switch/configure a serial port in that software.

Once you've found your software port configuration screen, does it display the Keyspan Mini Port Replicator *COM port number*?

If you **do not see** the Keyspan *COM port number* please contact Keyspan Tech Support for further assistance.

If you see the *COM port number* and have properly selected the Keyspan port that your serial device is connected to and are still having problems, please continue to **Step 4**.

Software/Printer Troubleshooting

Step 4 - Check the Device Manager

Check the Device Manager to see if the Keyspan ports (COM and LPT) have been registered. See Step 2 in the Configuring Your Parallel Printer section in this manual.

If you have followed all of the above steps and are still having problems with your Keyspan Mini Port Replicator, contact Keyspan Tech Support for further assistance.

When You Need More Help...

The Keyspan web site http://www.keyspan.com is your best source for technical support information. The web site includes technical notes, reference manual updates, and answers to frequently asked questions.

You may also contact our technical support department directly via email, phone, or fax. Please see the Support Information section in this manual for more details.

7.1 - Appendices -

- Frequently Asked Questions (FAQs)
  Frequently Asked Questions

- Compatibility List for Windows
  List of serial devices that have been tested with
  Keyspan serial adapters...

- Configuration Examples for Windows
  Instructions on configuring select serial devices to use
  Keyspan serial ports

- Serial Port Pin Outs
  Serial Port Pin Out and Loopback Test Information

- LED Behavior
  Description of the LED Behavior on your Keyspan Adapter

- Notices
  FCC, CE, VCCI, Copyright and Trademark Information

- Keyspan Warranty Information
  Keyspan Warranty Information

- Support Information
  Information about obtaining technical support

7.1.a - Frequently Asked Questions (FAQs)

The following is a list of **F**requently **A**sked **Q**uestions (FAQs) about the Keyspan Mini Port Replicator for Windows. Keyspan frequently updates and adds the questions and answers list below. For the latest list, please visit the our web site at: http://www.keyspan.com

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Frequently Asked Question List

Question:

How do I configure my serial device to recognize the Keyspan Mini Port Replicator?

Answer:

To configure any serial device to use a serial port on any Keyspan USB Serial Adapter, you must:

1. Locate the software that controls your serial device.

2. Access that software's port or connection configuration screen/dialog/menu/etc.

3. Select the Keyspan port that your device is connected to in port or connection configuration screen/dialog/menu/etc. for that device

Depending on what type of serial device you have, you may have to configure a control panel, an application, or a plug-in. Keyspan provides documentation on how to configure many popular serial devices in the Configuration Examples for Windows appendix in this manual.

Question:

Can I connect my Keyspan USB device to a USB hub?

Answer:

Yes, any Keyspan USB device can be connected to a USB hub. However, there are some USB hubs that cannot fully support some USB devices. If you are having problems with a Keyspan USB device that is connected to a USB hub, please connect the Keyspan USB device to a built-in USB port on your computer. If this solves the problem, then this may be an issue with your USB hub. If

you are encountering this problem or something similar to it, please contact Keyspan Tech Support for further instructions.

Question:

How do I configure my Printer to recognize the Keyspan Mini Port Replicator?

Answer:

To configure any printer to use the printer port on the Keyspan Mini Port Replicator, you must:

1. Install your printer's software and access its properties.

2. In the printer's properties, tell the printer to use the Keyspan LPT or USB00x port.

You can find step by step instructions for this in the Configuring Your Parallel Printer section in this manual.

7.1.b - Compatibility List for Windows

The following is a list of serial devices that have been tested with various Keyspan Serial Products on Windows. This list is intended to be used as reference guide and not as complete compatibility list. We are constantly testing products and adding them to this list.

For the latest version of this list, please visit our web site at: http://www.keyspan.com

For the compatibility list for other operating system (ie Mac OS, Mac OS X, etc.), please refer to the user manual for that platform or visit our web site at: http://www.keyspan.com

Legend

```
• = See Notes section at end of list
√ = Configuration Guide Available
Δ = Not Tested
Y = Compatible
N = Not Compatible
! = See Guide for Information
ø = not compatible with Operating System
```

Compatibility List for Windows (serial)

Product	Guide	USA19Qi USA19Q USA19	UPSH112 USA19QW USA19W	USA49W
Graphic Tablets				
Wacom Tablets		Y	Y	Y
PDAs and PDA Software				
Palm	√	Y	Y	Y
Psion Revo		Y	Y	Y
Sharp Wizard		Y	Y	Y
Compaq Aero		Y	Y	Y
Casio PV 400 Series		Y	Y	Y
RIM Blackberry		•	Y	Y
Royal Vista		Y	Y	Y

Windows CE PDAs (all models)	Y	Y	Y
ActiveSync	Y	Y	Y

Other Devices and Software

C-Pen	N	Y	Y
Olympus Digital Cameras	N	Y	Y
Modems (serial)	N	Y•	Y•

Compatibility List for Windows - Notes

RIM Blackberry	**USA19** - If you have a Keyspan USB PDA Adapter, model number USA-19, the Blackberry **Desktop Manager v2.1** is not able to communicate with Keyspan USB PDA Adapter with the model number of USA-19 due to a bug in the **Desktop Manager**. The currently shipping models of the Keyspan USB PDA Adapter *USA-19Q, USA-19Qi) are compatible. If you have the USA-19 model, please contact Keyspan tech support for further details.
Modems (serial)	**UPSH112**, **USA19w**, **USA49w** - If you are running Windows 98, Windows 98 SE, or Windows Me, you will have to add "AT&C0" to your modem initialization string. This is not necessary on Windows 2000 and Windows XP.

Compatibility List for Windows (parallel printers)

Most parallel printers are compatible with Keyspan's Mini Port Replicator and USB to Parallel products. If you have a printer that does not appear to work, please contact Keyspan Tech Support for further instructions.

7.1.c - Configuration Examples for Windows -

The following is a list of available configuration examples for Windows. These example provide step-by-step instructions on configuring select serial devices. The current example available are:

- Palm Desktop

For the latest version of this list, please visit our web site at: http://www.keyspan.com

For the configuration examples for other operating system (ie Mac OS, Mac OS X, etc.), please refer to the user manual for that platform or visit our web site at: http://www.keyspan.com

7.1.c.01 - Palm Desktop

Before you begin...

This Configuration Example assumes that you have already done the following:

1. installed the Keyspan serial port *hardware* and *software*
2. installed the Palm Desktop *software*
3. connected the Palm Serial Cradle *hardware* to a Keyspan serial port

If you have not performed any of the steps mentioned above, please do so before proceeding.

Step 1 - Check the Keyspan Serial Assistant

Before proceeding, you should check to see if the Keyspan serial port is installed correctly.

To do this, open the Keyspan Serial Assistant **(in Start menu -> Programs -> Keyspan Mini Port Replicator -> Keyspan Serial Assistant)**. When you open the Keyspan Serial Assistant, you will see a window similar to the one shown below:

the **Keyspan Serial Assistant** window

If your Keyspan hardware and software are installed correctly, you will see your adapter in the '**Adapter Status**' tab box. You should also see the *COM port number* (ie **COM1**, **COM2**, etc.) and the *COM Port Status*.(**IDLE** or **BUSY**).

If you see either of these messages, note the Keyspan *COM port number* (ie **COM1**, **COM2**, etc.) and its *COM Port Status*.(**IDLE** or **BUSY**). Proceed to **Step 2**.

If you do not receive either of these messages, proceed Problem Solving section in your Keyspan adapter's manual.

Step 2 - Access the HotSync® Manager

Before you can begin to HotSync your Palm, you must access and configure the HotSync® Manager application. The HotSync Manager is the program that manages the serial communication between your Palm and your computer.

The easiest way to access the HotSync Manager is via the Palm Desktop software. To do this, launch the Palm Desktop software. When the Palm Desktop software is running, go to the "HotSync" menu and select the "Setup" command.

the **HotSync** menu & **Setup** selection in the Palm Desktop software
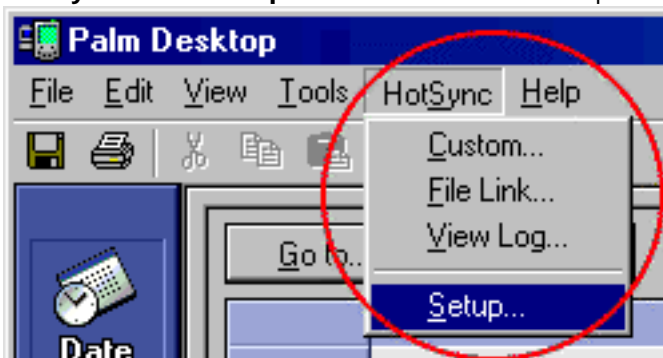
Once the HotSync® Manager application is opened, you will be presented with the HotSync **Setup** window.

the HotSync **Setup** window
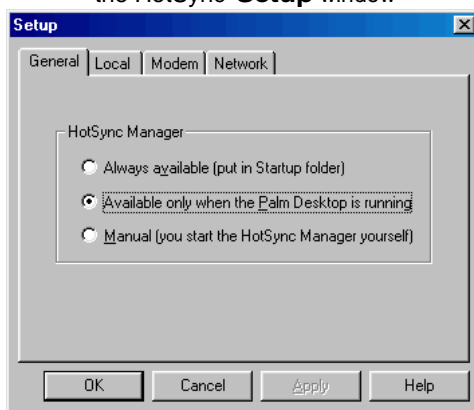
Step 3 - Configure the HotSync **Setup** window

In the HotSync **Setup** window, click on the **Local** tab. This will display the **Serial port** and **Speed** pull down menus.

the **Local** tab
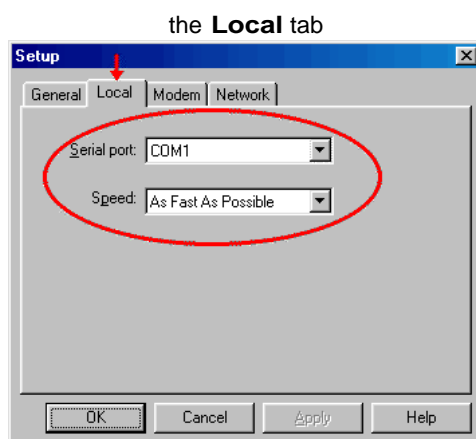
Select your Keyspan COM port in the **Serial port** pull down menu (see step 1 in this example).

Select 'As Fast As Possible' from the **Speed** pull down menu.

Step 4 - HotSync your Palm Organizer

Palm Software configuration is now complete. To initiate a 'HotSync' session, place your Palm Organizer in its cradle and then press the HotSync button on the cradle. Your Palm Organizer will now "HotSync."

7.1.d - Serial Port Pin Outs

The pin assignments for the Keyspan Mini Port Replicator's male DB9 port are illustrated below:

Keyspan Mini Port Replicator's
male DB9 port

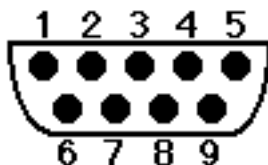| Pin	Name	Signal Designation
1	DCD	Data Carrier Detect (Input)
2	RX	Received Data (Input)
3	TX	Transmitted Data (Output)
4	DTR	Data Terminal Ready (Output)
5	GND	Ground
6	DSR	Data Set Ready (Input)
7	RTS	Request To Send (Output)
8	CTS	Clear To Send (Input)
9	RI	Ring Indicator (Input)

In order to ensure compliance with emission specifications, cables should be shielded using braided shields and metal hoods with complete 100% contact between the shields and hoods.

External Loopback Connector Information

The Keyspan Serial Assistant allows you to perform two types of loopback tests - internal and external. The external test requires the use of a special loopback connector. This connector requires a "DB9 Female Loopback plug" with the following wiring:

Pin(s)	Wired to	Pin(s)
1	<->	4,8
2	<->	3
6	<->	7,9

7.1.e - LED Behavior

The Keyspan Mini Port Replicator part number **UPSH-112** comes equipped with LED lights that reports the status of the Keyspan adapter *USB hardware* and and its ports.

The following table shows all of the possible states of these LED light and what they mean:

Name	Color	State	Significance
Power	**Red**	Off	The Keyspan adapter is not connected or not receiving power from your computer
		On	The Keyspan adapter is connected and is receiving power from your computer
USB1/ USB2	**Green**	On	The Keyspan USB Hub port is working properly.
Serial	**Green**	On (Blinking Slow)	The Keyspan serial port software and hardware are working properly. The Keyspan serial port is available for use.
		On (Solid)	The Keyspan serial port is '**in use**' by an application on your computer and is ready to send and receive data to and from your serial device.
		On (Blinking Fast)	The Keyspan serial port is is sending and/or receiving data to and from the attached serial device
Printer	**Green**	On	The Keyspan printer port is working properly.

7.1.x - Notices

<u>Notices</u>

<u>United States FCC</u>
DECLARATION OF CONFORMITY

We, InnoSys Incorporated at
3095 Richmond Parkway, Suite 207
Richmond, CA 94806 USA
(510) 222-7717

declare under our sole responsibility that the

KEYSPAN Mini Port Replicator, Model **UPSH-112**

complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications to the Mini Port Replicator not expressly approved by InnoSys Incorporated could void the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult InnoSys Incorporated or an experienced radio/TV technician for help.

CE MARK DECLARATION OF CONFORMITY
(According to EN 45014)

Manufacturer's Name and Address

InnoSys Incorporated
3095 Richmond Parkway, Suite 207
Richmond, CA 94806

Declares that the product:

Product Name: KEYSPAN Mini Port Replicator
Model Number: UPSH-112
Conforms to the following Product Specifications:

EN 55022: 1998 Class B
EN 55024: 1998

following the provisions of the Electromagnetic Compatibility Directive.

Mike Ridenhour, Richmond, CA, USA,
President, June, 2002

Canada Digital Apparatus EMI Standard

This Class B digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numerique de la classe B respecte toutes les exigences du Reglement sur le material brouilleur du Canada.

VCCI

Voluntary Control Council for Interference from Information Technology Equipment

Class B ITE

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準
に基づくクラスＢ情報技術装置です。この装置は、家庭環境で使用すること
を目的としていますが、この装置がラジオやテレビジョン受信機に近接して
使用されると、受信障害を引き起こすことがあります。
　取扱説明書に従って正しい取り扱いをして下さい。

(continued on next page...)

Translation:
This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

Australia/New Zealand

This device complies with AS/NZS 3548 Class B limits for the operation of Information Technology Equipment.

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7.1.y - Keyspan Warranty Information

KEYSPAN Software License Agreement and Limited Warranty

Definitions

The following definitions apply to the terms as they appear in this agreement.

- KEYSPAN means KEYSPAN, a division of InnoSys Incorporated.
- Software means the computer program contained in this package, and all updates to the computer program. The term also includes all copies of any part of the computer program.
- Documentation means the on-disk user's manual(s) as well as printed materials accompanying the Software.
- Product means the Software and Documentation

Copyright Protection

The Product is owned by KEYSPAN and is protected by United States and international copyright laws and international trade provisions. You must treat the Product like any other copyrighted material. This license and your right to use the Product terminate automatically if you violate any part of this agreement. In the event of termination, you must immediately destroy all copies of the Product or return them to KEYSPAN.

License Grant

Upon receipt of full payment for this product, KEYSPAN grants you a non exclusive license to:

- Use one copy of the Software on a single computer ("Dedicated Computer")
- Make one copy of the Software for archival purposes, or copy the Software onto the hard disk of your computer and retain the original for archival purposes. If one individual uses the Software on the Dedicated Computer more than 80% of the time it is in use, then the individual may also use a second copy of the Software for use on a single home computer, provided such use on a single home computer is limited to no more than 20% of the time.
- After written notification to KEYSPAN, transfer the entire product on a permanent basis to another person or entity, provided you retain no copies of the Product and the transferee agrees to the terms of this agreement.

For the purposes of this section,"use" means loading the Software into RAM, as well as installation on a hard disk or other storage device (other than a network server). You may access the Software from a hard disk, over a network, or any other means you choose, so long as you otherwise comply with this agreement.

You may NOT:

- Copy the documentation, except for purposes of creating a back-up copy for your own use.
- Modify, translate, or merge the Software with another program, except for your personal use on a single computer. Any modifications to the Software are subject to this agreement.
- Reverse engineer, disassemble, decompile, or make any attempt to discover the source code of the Software.
- Sublicense, rent, or lease any portion of the Product.
- Use the previous version of the Software that has been upgraded or updated under this agreement. Upon upgrading, or updating the Software, the old copy must be deleted from the computer and the original disks destroyed.

Limited Warranty on Software and Media

KEYSPAN warrants the disks on which the Software is distributed to be free from defects in materials and workmanship and that the Software will perform substantially in accordance with the Documentation for a period of 90 days from your receipt of the Product. Any written or oral information or advice give by KEYSPAN resellers, agents or employees will in no way increase the scope of this warranty.

If the Product fails to comply with the warranty set forth above, KEYSPAN's entire liability and your exclusive remedy will be replacement of the disk or, at KEYSPAN's option, KEYSPAN's reasonable effort to make the Product meet the warranty set forth above. This limited warranty applies only if you return all copies of the Product, along with a copy of your paid invoice, to KEYSPAN within 90 days of the date you received the Product. If KEYSPAN is unable to make the Product conform to the above warranty, KEYSPAN, at its option, will refund all or a fair portion of the price you paid for this package. Any replacement software will be warranted for the remainder of the original 90 day warranty period or for 30 days from the date your received the replacement, whichever is longer.

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No Liability for Consequential Damages

In no event shall KEYSPAN or its resellers be liable for any damages whatsoever (including, without limitation, damages for loss of profits, business interruption, loss of information, or other pecuniary loss) arising out of the use of or inability to use this KEYSPAN product, even if KEYSPAN has been advised of the possibility of such damages. Because some jurisdictions do not allow the exclusion or limitation of liability for consequential damages, the above limitation may not apply to you. The foregoing limitations of warranty and liability inure to the benefit of KEYSPAN licensors having an interest in this package.

General

This agreement constitutes the entire software license agreement between you and KEYSPAN and supersedes any prior agreement concerning the contents of this package. It shall not be modified except by written agreement dated subsequent to the date of this agreement and signed by an authorized KEYSPAN representative. KEYSPAN is not bound by any provision of any purchase order, acceptance, confirmation, correspondence, or otherwise, unless KEYSPAN specifically agrees to the provision in writing. This agreement is governed by the laws of the State of California.

Keyspan,
a division of InnoSys, Inc.
3095 Richmond Pkwy, Ste. 207
Richmond CA 94806

7.1.z - Support Information

Contacting Support

If you require assistance with any Keyspan product, you may contact us by one of the following ways:

- **web/email**: http://www.keyspan.com/support/
  (Monday through Friday: 9 am to 5 pm Pacific)

- **fax**: +1.510.222.0323
  (Monday through Friday: 9 am to 5 pm Pacific)

- **telephone** : +1.510.222.8802
  (tech support) (Monday through Friday: 9 am to 5 pm Pacific)

International Support Options

If you live outside of the United States and require assistance with your Keyspan product, please contact the Keyspan's distributor in your country for technical support in your language. For a list of Keyspan's international distributors, please visit our international web page at:

http://www.keyspan.com/international/